



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

08/987,775 12/09/97 GREFENSTEIN

A 47587/48070

EXAMINER

IM52/1030

HERBERT B KEIL  
KEIL & WEINKAUF  
1101 CONNECTICUT AVE N W  
WASHINGTON DC 20036

KRUER, K

ART UNIT

PAPER NUMBER

1773

DATE MAILED:

10/30/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

**Office Action Summary**

Application No.

08/987,775

Applicant(s)

GREFENSTEIN ET AL.

Examiner

Kevin R Kruer

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 24-32,34,35,39 and 40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 24-32, 34, 35, 39, and 40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other:

Art Unit: 1773

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 27 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The reference to "components A and B, and optionally C and D" renders the claim indefinite. Specifically, it is unclear for an independent claim to refer back to another claim. Applicant should incorporate the composition of claim 24 into independent claim 27. Furthermore, the use of the phrase "optionally" within the Markush group is confusing. The claim should be rewritten so it is clear exactly what species are included within the Markush.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 27 is rejected under 35 U.S.C. 102(b) as being anticipated by Ellison (Pat. No. Re35,894). Ellison teaches a molded article which comprises a weatherable topcoat, a molded polymer substrate (abstract), and a binding layer (col 5, line 50 - col 6, line 30). Polymethyl methacrylate may be utilized as the weatherable topcoat (col 4, lines 24-61) and has a thickness of 12.7 to 7,600 microns (col 6, lines 43-48). The molded article in Ellison may be in the form of an

Art Unit: 1773

automotive exterior bodywork component (see Fig 4) and comprises a polymer with engineering properties such as nylon (a.k.a. a polyamide) (col 5, lines 33-35).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellison (US Re35,894), as applied to claim 27 above. Ellison is relied upon as above. Specifically, Ellison teaches a molded article which comprises a weatherable topcoat, a molded polymer substrate (abstract), and a binding layer (col 5, line 50 - col 6, line 30). Polymethyl methacrylate may be utilized as the weatherable topcoat (col 4, lines 24-61) and has a thickness of 12.7 to 7,600 microns (col 6, lines 43-48). The binding layer comprises an acrylic type pressure sensitive adhesive (col 5, 65) with a thickness of 6.35-6,350 microns (col 6, lines 30-33). The molded article in Ellison may be in the form of an automotive exterior bodywork component (see Fig 4) and comprises a polymer with engineering properties such as nylon (a.k.a. a polyamide) (col 5, lines 33-35).

Ellison does not teach that the acrylic type PSA should be polymethyl methacrylate. However, polymethyl methacrylate is known in the art as a PSA. The courts have held that the selection of a known material based on its suitability for its intended use supports a prima facie case of obviousness. *Sinclair & Carroll Co. V. Interchemcial Corp.* 325 U.S. 327, 65 USPQ 297

Art Unit: 1773

(1945). Thus, the examiner takes the position that it would have been obvious to one of ordinary skill in the art to select polymethyl methacrylate as the acrylic type PSA because polymethyl methacrylate is known in the art to be suitable as a PSA.

Ellison also does not teach that the adhesive layer should comprise pigment/colorant. However, the court has held that matters relating to ornamentation only which have no mechanical function cannot be relied upon to patentably distinguish the claimed invention from the prior art.

7. Claims 24, 26, 27, 29, 31, 34, 35, 39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellison et al. (Pat. No. Re 35,894) in view of Fischer et al. (Pat. No. 5,747,568). Ellison teaches a molded article which comprises a weatherable topcoat, a molded polymer substrate (abstract), and a binding layer (col 5, line 50 - col 6, line 30). Polymethyl methacrylate may be utilized as the weatherable topcoat (col 4, lines 24-61) and has a thickness of 12.7 to 7,600 microns (col 6, lines 43-48). A clear coat may be applied over the weatherable topcoat (col 4, lines 15-23). The examiner takes the position that such a coating would inherently function as a protective coating. The binding layer may be an acrylic adhesive and has a thickness greater than 6.35 microns (col 6, lines 30-34). The molded article in Ellison may be in the form of an automotive exterior bodywork component (see Fig 4) and comprise a polymer with engineering properties (col 5, lines 33-35).

Ellison does not teach that the substrate may comprise the claimed composition. However, Fischer teaches a molding material comprising 30-80% of an elastomeric grafting base and 20-70% by weight of a shell grafted onto the grafting base (abstract). The grafting base

Art Unit: 1773

comprises 90-99.9% of at least one alkyl acrylate and 0.1-10% by weight of a polyfunctional crosslinking monomer. The shell comprises 0-100% styrene or substituted styrenes, and 0-100% of an acrylonitrile or methyl methacrylate. The above described particles are dispersed in a hard matrix comprising 60-90% styrene or substituted styrene and 10-40% acrylonitrile (col 1, line 48- col 2, line 16). The composition may further contain up to 30% by weight of additives such as fibers (col 4, lines 26-34). This composition is suitable for molded automobile parts because of its good weather resistance, aging resistance, and high impact strength (col 4, lines 46-53).

Furthermore, such ASA resins are known to be engineering plastics. It would have been obvious to one of ordinary skill in the art to utilize the composition as taught in Fischer as the substrate of the laminate taught in Ellison because Ellison teaches that polymers suitable for automotive parts and possessing engineering properties may be used as the substrate and Fischer teaches an engineering plastic composition which may be used in the construction of automotive parts and which has superior heat-aging resistance.

8. Claims 25 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellison et al. (Pat. No. Re 35,894) in view of Fischer et al. (Pat. No. 5,747,568) as applied to claims 24, 26, 27, 29, 31, 34, 39, and 40 above. Ellison in view of Fischer is relied upon as above. Neither Ellison nor Fischer teaches that the laminate may comprise a second layer comprising the ASA composition of claim 1. However, the courts have held that the mere duplication of parts has no patentable significance unless a new and unexpected product is produced. Therefore, the examiner takes the position that it would have been obvious to have a laminate comprising two or more ASA engineering plastics layers which comprise the molded substrate because the courts

Art Unit: 1773

have held that the mere duplication of parts has no patentable significance unless a new and unexpected product is produced. Such duplication of the substrate would be desirable in order to reduce processing cost, ease processing conditions. Furthermore, the examiner takes the position that a laminate comprising two layers of the same composition directly adjacent to one another is not patentably distinct from a single layer product of the same composition. Therefore, Ellison in view of Fischer reads on a laminate wherein the intermediate layer is ASA, and wherein the intermediate layer comprises the composition of claim 1.

9. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellison et al. (Pat. No. Re 35,894) in view of Fischer et al. (Pat. No. 5,747,568), as applied to claims 24, 26, 29, 31, 34, 37, 39, and 40, above. Ellison in view of Fischer is relied upon as above. Neither Ellison nor Fischer teaches the ratio of the MFI values of the components should be no more than 3:1.

However, the examiner takes the position that it would have been obvious to one of ordinary skill in the art to process the components of the laminate taught in Ellison so that the ratio of the MFI values of the components was not more than 3:1 so to ensure uniform flow of the components. This is important when the laminate are coextruded because it is desirable that the components are extrudable at approximately the same rate in order to ease processing.

10. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellison et al. (Pat. No. Re 35,894) in view of Fischer et al. (Pat. No. 5,747,568), as applied to claims 24, 26, 27, 29, 31, 34, 39, and 40, above, and further in view of Leca et al. (Pat. No. 5,279,883). Ellison in view of Fischer is relied upon as above. Neither Ellison nor Fischer teaches that a removable protective coat may be applied over the PMMA layer. However, Leca teaches that paper or

Art Unit: 1773

ethylene polymer films have traditionally been applied over PMMA layers to protect them during transport and handling (col 1, lines 26-36). Therefore, the examiner takes the position that it would have been obvious to one of ordinary skill in the art to apply a removable protective layer to the PMMA top coat taught by Ellison because it is well known in the art to apply paper or ethylene polymer films over PMMA layers to protect them during transport and handling.

***Response to Arguments***

The examiner would like to take this opportunity to respond to some of Applicant's arguments that are relevant to the applied rejection.

Applicant argues that the phrase "suitable for producing moldings" distinguishes the claimed invention from the applied art. The examiner respectfully disagrees. The above-mentioned phrase is found in the preamble of the claim and does further limit the claim. Furthermore, the above-mentioned phrase is an intended use limitation, that does not limit the scope of a claim or claim limitation. The courts have also held that the prior art meets the claim if the structure is capable of performing the intended use. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In the present application, Applicant admits that "it is possible to remold something that has already been molded." Thus, the examiner maintains the position that the applied rejection reads on the amended claims.

Applicant further provides a Declaration from Dr. Grefenstein (Paper #16). Dr. Grefenstein argues that extruded films have orientation induced in the polymers, which may only partly relax after leaving the extrusion die. The examiner accepts the expert testimony of Dr. Grefenstein as fact. However, the rejection is maintained because the examiner takes the position



Art Unit: 1773

that such orientation is not inherent to a (co)extruded product. Specifically, the examiner takes the position that a (co)extruded product could be annealed after extrusion in order to relax said orientation induced during extrusion. The examiner further takes the position that said orientation could be relaxed through other forms of post-processing such as molding. Therefore, the declaration does not distinguish the claimed invention from the prior art.

The declaration further contains tests that measure the shrinkage of various (co)extruded sheets. However, it is unclear under what conditions the extrusions were performed.

Furthermore, there is no comparative data presented that shows sheets processed via the method taught in the closest prior art. Therefore, the declaration is not persuasive.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. Rosenau et al. (Pat. No. 5,821,302) and Lin et al. (Pat. No. 5,795,936) teaches the claimed composition.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R. Kruer whose telephone number is (703) 305-0025. The examiner can normally be reached on Monday-Friday from 7:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver, can be reached on (703) 308-1261. The fax phone number for the organization where this application or proceeding is assigned is (703)305-5436.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0651.

Art Unit: 1773



Kevin R. Kruer  
Patent Examiner



BLAINE COPENHEAVER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700